

Message Text

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DRAFTED BY: AEX:RBINGHAM

APPROVED BY: OGANLEY, OES/SCI/SEP

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TWALSH, EUR/SOV

R.C. LIIMATAINEN, OES/SCI/SEP

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R 082238Z NOV 74

FM SECSTATE WASHDC

TO AMEMBASSY MOSCOW

UNCLAS STATE 247091

FOR SCICOUNS FROM AEC

E.O. 11652: NA

TAGS: TECH, ENRG, UR

SUBJECT: ATOMIC ENERGY AGREEMENT: CTR COOPERATION

PLEASE DELIVER FOLLOWING MESSAGE FROM R.L. HIRSCH TO
E.P. VELIKHOV, DEPUTY DIRECTOR, KURCHATOV ATOMIC ENERGY
INSTITUTE, WITH COPY TO G.A. ELISSEEV AT KURCHATOV
INSTITUTE: "WE WOULD LIKE TO PROVIDE SOME ADDITIONAL
INFORMATION AND REQUEST MORE DETAILS CONCERNING THE
ARRANGEMENTS FOR THE FORTHCOMING EXCHANGE VISIT UNDER OUR
CTR PROTOCOL TO DISCUSS THE "MATERIALS PROBLEMS OF
CONTROLLED FUSION."

OUR DELEGATION HAD EXPECTED TO SPEND TWO WEEKS IN THE
SOVIET UNION BUT YOUR RECENT LETTER SHOWED ONLY 10 DAYS
FOR THIS EXCHANGE. WE WOULD LIKE TO MAINTAIN THE TWO
WEEK PERIOD UNTIL DEPARTURE ON NOVEMBER 30. ARRIVAL
WOULD REMAIN AS CURRENTLY SCHEDULED ON NOVEMBER 17.
OUR GROUP IS VERY INTERESTED IN VISITING SOVIET
LABORATORIES DOING WORK RELATED TO SURFACE PHENOMENA,
NEUTRON RADIATION DAMAGE, ION SIMULATION DAMAGE,
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REFRACTORY METALS, INSULATORS AND MECHANICAL PROPERTIES.

LABORATORIES OF INTEREST WOULD INCLUDE THE IOFFE AND EFREMOV INSTITUTES IN LENINGRAD AND THE INSTITUTE OF METAL PHYSICS IN KIEV, AS WELL AS THE KURCHATOV INSTITUTE, INSTITUTE OF METALLURGY AND INSTITUTE OF PHYSICS AT MOSCOW STATE UNIVERSITY - ALL IN MOSCOW. A TOUR OF THE PLASMA PHYSICS FACILITIES AT KURCHATOV IN ADDITION TO THE MATERIALS RELATED ACTIVITIES WOULD BE MOST USEFUL. WE WOULD APPRECIATE A PROPOSED AGENDA, SCHEDULE OF VISITS AND TRAVEL PLANS AS SOON AS POSSIBLE.

SUGGESTED TOPICS FOR DISCUSSION BY THE US DELEGATION ARE LISTED BELOW:

GENERAL TALKS

INTRODUCTION AND OVERVIEW OF US MATERIALS PROGRAM -
K.M. ZWILSKY

NUCLEAR CRITERIA FOR MATERIALS SELECTION - D. STEINER
MATERIALS REQUIREMENTS FOR A HELIUM-COOLED TOKAMAK FUSION
REACTOR - G. L. KULCINSKI
MATERIALS REQUIREMENTS FOR A THETA PINCH FUSION
REACTOR - F.W. CLINARD
POWER BALANCES IN POTENTIAL FUSION REACTORS - D. STEINER
REVIEW OF NEUTRON SOURCE DEVELOPMENT PROGRAM -
K.M. ZWILSKY
CTR ELECTRICAL INSULATOR STUDIES - F.W. CLINARD

SURFACE RELATED TALKS

PLASMA CONTAMINATION AND WALL EROSION BY ION AND
NEUTRON SPUTTERING - M.S. KAMINSKY
SURFACE EFFECTS OF D-T NEUTRONS ON CANDIDATE FUSION
REACTOR MATERIALS - O. HARLING
PLASMA CONTAMINATION AND WALL EROSION BY BLISTERING
AND OTHER RADIATION-SURFACE INTERACTIONS -
M.S. KAMINSKY
IMPURITY EFFECTS IN PRESENT DAY TOKAMAK PLASMAS USING
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DIVERTORS - D. MEADE
IMPURITY CONTROL IN NEXT GENERATION DEVICES - D. MEADE
REDUCING THE EFFECTS OF RADIATION ON THE FIRST WALL -
G.L. KULCINSKI

BULK RADIATION RELATED TALKS

COMPARISON OF DISPLACEMENT AND GAS PRODUCTION RATES
IN FISSION AND FUSION REACTORS - G.L. KULCINSKI
REVIEW OF THE EFFECTS OF IRRADIATION ON MATERIALS

PROPERTIES IN A FAST NEUTRON ENVIRONMENT -
T.T. CLAUDSON
EFFECTS OF NEUTRON IRRADIATION ON MECHANICAL PROPERTIES
WITH EMPHASIS ON HIGH HELIUM CONTENTS - J.A. HORAK

METAL SWELLING IN A FAST REACTOR NEUTRON ENVIRONMENT -
T.T. CLAUDSON
14-MEV NEUTRON DAMAGE IN COPPER AND NIOBIUM -
R.R. VANDERVOORT
ION SIMULATION OF IRRADIATION EFFECTS IN STRUCTURAL
ALLOYS - T.T. CLAUDSON
IRRADIATION EFFECTS IN SUPERCONDUCTORS - R.R. VANDERVOORT

ADDITIONAL INFORMATION AS REQUESTED IN DR. MOROZOV'S
NOVEMBER 5 TELEGRAM WILL BE SENT VERY SOON. MAW

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Message Attributes

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TAGS: TECH, ENRG, UR
To: MOSCOW
Type: TE
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